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ABSTRACT

A project was undertaken by three faculty members at Northern Kentucky University (a history teacher, a reading specialist, and a composition teacher) to apply their own experiences and the research of others into a systematic and comprehensive mastery learning program for developmental classes in the spring of 1980. The program was designed to help students read more efficiently, take intelligent notes, take essay and comprehensive exams, do independent problem-solving library research, and produce high quality English themes. The program was to be interdisciplinary in approach and content, and assignments were developed specifically to meet these general objectives. Summative evaluation was based on a comprehensive history examination, the results compared with those of a related but nondevelopmental class; essays read and evaluated by instructors who did not know which class they were from; evaluation of library exercises by outside instructors; and a critique by the students, a committee of faculty most involved in developmental education, and the Teaching Effectiveness Task Force on campus. Problems encountered included the fast pace of the course (with some loss of students) and imposing the course schedule on evaluators outside the program. However, results showed the highest scores registered by the high-risk students, and the class average was considerably higher than that of the other class. Some students made dramatic gains, with half the class scoring in the 90th percentile. It is concluded that 17 of the 27 developmental students would have no trouble competing in composition classes, and at least nine could be expected to do above-average work. (MSE)

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An Interdisciplinary Mastery Learning Program For "High Risk" Students

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1. BACKGROUND:

The three of us involved in the project (a history teacher, a composition teacher, and a reading specialist) have worked together for several semesters with students in developmental programs. Last year we applied for and were granted funds to develop alternative strategies for working with the visually impaired. Last year's project, we felt, was a success. (The student learned. We learned at least as much as the student. We participated in last year's "sharing seminar," and, additionally, gave a paper on our work at the National Conference on College Composition and Communication in Washington, D.C. in March, 1980).

For this year's project, as mentioned in the application, we based our approach on ideas drawn partly from our experience of last year with the handicapped, partly from the wealth of information generated at last year's "sharing seminar" at Western Kentucky University, and partly from individual class experiments of the fall (1979) semester, attempting to incorporate the various research into a systematic and comprehensive program for our developmental (and paired) classes for this, the spring semester, 1980.

As we proposed, we attempted to construct an interdisciplinary mastery learning program to help students (1) read more effeciently, (2) take intelligent notes, (3) take essay and comprehensive exams, (4) do independent, problem-solving library research, and (5) produce quality English themes.

Our purpose, then, was to provide a program for students considered "high risk," one which provided the student self-paced processes which would result not only in subject mastery and skill competency but a sense of independence based on the idea of "learning how to learn" as the real end product of a program.

2. OBJECTIVES:

Our objectives, as outlined in our proposal, were:

1. Construct interdisciplinary mastery program that tied together the information of several disciplines in order to give students a comprehensive picture of education in general.

2. Develop a series of specific reading and content exams that reinforced the students' reading, writing, and test-taking ability as well as their understanding of content material.

3. Develop a comprehensive approach to studying to improve student ability to observe and note relevant information, and thus improve note-taking, as just one example.

4. Develop library assignments that were problem solving in nature, ones designaced to encourage students to relate assigned exercises to current affairs, recent findings and/or new publications.

5. Design an English theme framework to encourage students to relate and apply information and learning skills to the writing process.

3. TIME TABLE FOR COMPLETION OF PROJECT:

January 3 through January 10 - Administering and evaluating pre-program tests and assessing entry level performance of students.

January 10 through March 25 - Providing instruction and administering series of tests which provide both instructor and student evaluation of the process of self-directed mastery learning.

March 25 through April 10 - Review and evaluation of project by both internal and external evaluators.

April 10 through April 12 - Final preparation of report for distribution to appropriate university committees and to Kentucky Council on Higher Education.

4. PROCESS OF PROJECT EVALUATION AS STATED IN PROPOSAL:

In order to determine the success of the project, in conclusion and enroute, various tests will be administered. (1) There will be a pre-course comprehensive history test and pre-course essay and short identification exams for diagnostic purposes. (2) There will then follow a sequence of tests, each relating to assigned chapters, the purpose of which is to allow the student to check his comprehension, and to allow him to reread and retest on areas of weakness. (3) Writing assignments - both essay themes and brief identifications - will be drawn from the material covered by the reading tests, so that there will be constant reciprocity among reading, writing and content assignments. (4) The library exercise will be designed to introduce on a larger scale the habit of research encouraged by the chapter tests and to allow the student to demonstrate his ability to solve problems by applying skills and techniques learned in classroom situations to outside, independent, self-paced exercises. (5) Summative evaluations will be based upon a factual, comprehensive history exam (a summary test, pulled together from the sequence of chapter tests), the results to be compared with those from a related, but non-developmental class; essay exams, which will be read and evaluated by instructors who will not be told which papers come from the developmental course and which come from the non-developmental courses; and evaluation of the library exercises by outside instructors (those not directly responsible for teaching the classes). Finally, the participating students, a committee drawn from the Northern faculty most involved in

developmental education, and the Teaching Effectiveness Task Force will be asked to critique and evaluate the project. All materials, including critiques and various evaluations, will be made available to the appropriate university units.

5. THE PROCESS

As first step we put together a one hundred and four question examination. The questions related to the text for the history class, Freedom and Crisis. This exam, which served as a pre-course comprehensive test, was given to the students of our paired classes and to those in a so-called "regular" class. The results, for our "high risk" students (using the term for identification not judgement), were rather telling. They scored below the "average" of the control class. The highest score for our class was a fifty percent, the others falling in the thirties and forties.

Following the pre-course objective (comprehensive) test, we gave a list of one-hundred and fifty terms. Again, these were drawn from the twenty-five chapters of the textbook (as were the objective questions). These were designed to reflect not only the gist of each chapter, but, collectively, to reflect the main themes and general themes of U.S. History from the Civil War to the present. Directions were to identify, in one or two well-constructed sentences, the man, or act, or event in terms of historical significance. (No "Grant-a general" or "Einstein-he was a kind of scientist or something" kinds of sentences, then). The purpose of this exam was simply to see how much each student knew and how well he could state what he knew (as well as to see that this was the same material in different form as was encountered on the objective exam). The final assignment in these first three sequential exams was to write an essay based upon reading of a vignette chapter, "Sherman's March." The directions were: "What were the specific objectives of Sherman, what particular problems did he encounter, and what were the short-and long-range consequences of this famous march?" The assignment was given in advance of the reading of the material. It was made broad and general in order to encourage the students to write as much as possible in an hour and ten minutes.

The written exams were then analyzed by the three of us plus a volunteer from the English department, a professor on that department's placement committee, the committee that decides whether incoming freshmen will go into regular or remedial writing classes. Using entry level criteria, only five out of twenty-seven (the class total) could be judged as ready for regular English classes.

On the basis of these three different pre-program exams (given during the period January 3 through January 10), all of us, students and instructors alike, had our considerable work cut out for us. When the results of the exams (and the exams themselves) were returned to the class, we emphasized that these were diagnostic only, that no one would be graded, stereotyped, or predestined by these undertakings. But we also emphasized that the

the material and the methods of acquiring and applying (particularly the latter) would have to be mastered, a mastery each could aquire with diligent, consistent, and evolving application.

From January 10 through March 25 we began our version of Sherman's march to the sea. We began the sequence of tests, each relating to assigned chapters. These were sections of the large, pre-course objective test, rearranged so that it was not possible for a student to memorize questions and answers. These tests were marked, with a reference page noted if a question were missed, forcing the student to, thus, not only read in advance, but reread the material. This exercise, too, we felt, served as an embryonic research exercise. Since the exams were always comprehensive (and cummulative), there was consistent and on-going reading, rereading, testing and retesting. The students were given a frame of time within which to complete assignments, but not specific deadlines as such in order for them to develop their own self pace methods and approaches. During this period, too, the students were given weekly writing assignments-both essay themes and brief identifications-that were drawn from the reading tests, in order to forge a constant reciprocity among reading, writing and content assignments. Further, we attempted to break down the barriers between academic disciplines by bringing in, through the lectures, analogies and themes from literature, mythology, psychology, and science that delineated, supplemented and complemented the materials too often packaged as "history." We attempted to get the students to become active participants in all undertakings, to follow the maxim that "to learn how to learn," one must make a simultaneous draw from material studied and one's own human experience. When we showed the film The Twenties, for example, they were asked not just to settle back and enjoy the film, but to view it as historians and film critics and write a critical review of both content (as measured against their reading) and presentation (hopefully drawing on their developing critical abilities). Similar attempts were made to have them relate the historical process to current materials, to analyze and evaluate the ideas in such items as "The Outsider" and "Why We Don't Know Anything," taken from Newsweek (enclosed as examples). The rules we followed was that, primarily through the act of writing, the students should seek relationships between past and present, among materials from different media and different disciplines.

Another rule we applied was the existential theory that one defines oneself by the choices one makes. Hence, whenever possible, the students were given in advance of out-of-class (and most in-class) writing assignments lists of questions or topics, asked to chose which idea to follow. (Samples of questions and topics enclosed). We worked in stages. The students first submitted an outline, which was reviewed. Particularly, we were looking for inclusion of the factual material from the reading and pre-course exams on the outline. When the outline was approved, they then wrote one outside essay and one in-class theme. Both were then dissected until running red. Both then were rewritten (a few twice). Both original and rewrites were turned in, the three of us plus our English connection

then grading the finished product.

We also tied the library assignment (sample copy enclosed) to the writing assignment. After researching and outlining a topic of choice, and after approval of library work and outline, the students again were put through the write-rewrite evaluation process. In this process, as with all others, the students were given a frame of time rather than deadlines toward which to work.

6. SUMMATIVE EVALUATIONS

The first evaluation was a factual, comprehensive test (a rerun, as it were, of the pre-course, chapter sequence test(s)), given also to the regular class. The results bore out the idea that constant, on-going and evolving contact with factual material leads to a degreed mastery of that material. The results were a reversal of the pre-course results. The highest grades were registered by the "high risk" students and the class average was considerably higher.

Some of the students made dramatic gains, with one-half of the class scoring in the 90 percentile area. Something of the same could be said about the written work (of approximately half of the twenty-seven students). We called for considerable help in evaluating the writing exercises. The essays that stood for final course marks on this phase went through instructors in courses who agreed to read them along with essays (along the same topics) from their own students. The covers of blue books were removed, so there was a large degree of objectivity here, we think. We had, as we had along the way, considerable help from the English department and developmental education faculty in evaluation of written materials, including library work. We tried very hard to make sure that our ego involvement with the students was kept to a minimum and we succeeded with the considerable help and abetment of our several outside evaluators. Based on concensus opinion, seventeen of our students, as judged by their total writing output, would have no trouble competing in regular composition classes, and at least nine could be expected to do B+ to A work. This, we felt, was a sizeable step forward, since pre-course evaluations judged only five ready for regular composition courses and those five just barely ready.

7. STRENGTHS AND WEAKNESSES OF PROJECT

Although all of us involved in the project felt we had made some gains (and in a few cases, considerable gains), we also encountered our share of problems. Even though we allowed rather generous frames of time within which students could work, the overall pace was nonetheless a fast track, indeed. So we had our casualties. Some (five) reverted quickly to the habits that played large roles in their being "high risk" students in the first place-evasion, avoidance, and scapegoating of problems. These students simply stopped coming to class altogether early in the semester. Others (again five) made

sporadic attempts at attending class and completing assignments. These, too, fall by the wayside, their only consolation being that they failed further down the line. There were other problems. We relied heavily on impartial evaluators, and it was difficult to impose our project time-scale on those whose work-pace was the academic semester. (This also created problems for us, obviously). We were, thus, almost always a bit behind any given point in our project evolution and the reason we are behind schedule in turning in this report.

Yet, in spite of several kinds of frustration, we take great consolation in the strengths and accomplishments of the undertaking. Perhaps a "salvage" rate of seventeen our of twenty-seven in a "high-risk" class is not too bad. And, for those who stayed the full measure, the achievement rate (as opposed to mere "salvage") was high. Four made As. Eight received Bs. Five received high Cs. And these grades were not made in a special context. The grades corresponded to those in their other classes, and, by the evalution of our outside evaluators, would have been the grades in any history class and any English class. Certainly their written work was good; their themes reflected quality and quantity, structure and content. These students learned to blend, to synthesize, to draw from both material and active, participatory experience. For these students the end products of the course were pride in accomplishment, an enlarged view of the educational context, and a respect for and appreciation of the tools of the academic process-the library, books, the confident march of the pen along bluebook pages.